G7 Workshop on the economic impacts of extreme weather events and natural hazards

High-level summary of the G7 presidency

On 11 May 2026, the Banque de France and DG Trésor organised a workshop on the economic and financial impacts of extreme weather events and natural hazards, and related insurance protection gaps. Gathering representatives from all G7 members as well as invited countries, international organisations, civil society and academics, this workshop helped to advance the discussion on the impacts of these events and on extending insurance coverage, a priority of the French G7 Presidency finance track.

In the first session of the workshop, participants discussed the economic and financial implications of extreme weather events.

The Central Banks' and Supervisors' Network for Greening the Financial System (NGFS) presented key messages of an upcoming technical note assessing the economic and financial impacts of extreme weather events, drawing from 31 case studies provided by its membership and describing impacts of past floods, droughts, storms and wildfires. The note describes the various transmission channels to the economy and the financial system, illustrated by concrete examples. It also highlights that impacts depend on a wide array of factors including the type of hazard, the exposure at the local level, and vulnerability to these risks, which depends among other things on insurance coverage, fiscal space, preparedness and adaptation.

The Grantham Research Institute of the London School of Economics (LSE) then presented insights focusing on international spillovers and compounding effects. Citing recent work conducted for Europe, the institute underlined that extreme weather is macro-critical, and that economic and financial risks are found to be amplified by interconnectedness. The presentation also stressed the importance of considering compounding risks, as weather events can happen simultaneously in various parts of the world, and carry an accumulation of losses which may spill over to other countries for instance through international supply chain linkages. Investing in physical resilience and natural capital were described as relevant solutions to reduce the impacts of extreme weather risk, and it was suggested that collective resilience, on top of domestic preparedness, is economically rational in an interconnected world.

During the discussion, participants discussed the materiality of extreme weather events in both advanced and emerging market economies. Material impacts filter through various transmission channels and can be both direct and indirect. This was highlighted by interventions from central bank participants from Kenya, South Korea, Canada, Germany and India. For example, Canada mentioned indirect impacts through global shocks, like hurricanes that have affected refining capacity in the United States and therefore impacted the prices and volumes of Canadian oil exports to the US. Second, participants discussed that the economic impacts of extreme weather events can be either transitory or lingering, especially for inflation, generating trade-offs for central banks in the conduct of monetary policy. Third, participants underlined the non-linearity of economic and financial impacts, noting that (i) compounding effects can materialise when shocks interact with one another, (ii) spillover effects, transmitted through global supply chains, can amplify losses for less directly exposed economies and (iii) sectoral heterogeneity entails a potential concentration of risks in more vulnerable sectors such as agriculture, tourism, energy and transportation. Fourth, participants stressed the need for a multi-stakeholder approach which can include the public sector and the private sector, recalling that with the intensification of these events, striking the right balance between *ex ante* and *ex post* measures is becoming all the more important to preserve public finances. Based on findings from the European Commission's Joint Research Center, the need to look at the distributional impacts of extreme weather shocks among households or geographical areas was also mentioned. Finally, data gaps were collectively cited as a key area to invest in, since risk assessments benefit from granular data availability, highlighting the importance of disclosures.

The second session of the workshop tackled the issue of measuring protection gaps[1], a prerequisite for assessing challenges to insurability and supporting effective policy responses, which remains challenging due to methodological differences across jurisdictions, the need to distinguish between insurable and non-insurable losses, and data quality and availability constraints.

The IAIS presentation highlighted the growing relevance of insurance protection gaps amid rising financial losses from extreme weather events. Protection gaps arise from both demand-side and supply-side drivers. These include affordability constraints, limited risk awareness and financial literacy, reliance on public assistance, insurer market withdrawals, and data and capacity limitations. The global protection gap has widened over time and was estimated at 57% of total losses in 2024, reflecting inflation, urbanisation, growing economic exposures, and increasing frequency and severity of extreme weather events (notably secondary perils), with large variations across regions. The IAIS outlined both retrospective and prospective measurement approaches, stressing the growing importance of forward-looking analysis, as future impacts may

[1] The protection gap is defined as the share of insurable losses that remain uninsured. It excludes uninsurable and indirect losses.

differ from current exposures. The presentation emphasised the importance of a multi-party collaboration (governments, insurance supervisors, (re)insurers, international organisations and multilateral development banks, as well as academia).

The Geneva Association presentation focused on rising challenges for insurers as extreme weather events intensify. Economic and insured losses from natural catastrophes have increased sharply, with insured losses exceeding USD 100 billion annually since 2020 while covering only about 30% of total losses. And more than 50% of insured losses are now coming from smaller, more frequent, and localised events, such as floods and wildfires, highlighting cumulative risks. Risk-based pricing was identified as a key tool to strengthen risk signalling, transparency, and market sustainability, while encouraging behavioural change. At the same time, rising risks have increased pressures on insurance availability and affordability[2], including coverage restrictions and market exits. Insurability issues reflect not only the frequency and severity of perils, but also economic decisions made by various stakeholders leading to rising exposure and vulnerability of assets, for instance via land-zoning practices, outdated building codes, ageing infrastructure (e.g. faulty power lines causing wildfires), urbanisation, or higher costs of rebuilding. Addressing these challenges is seen as requiring scaled-up resilience measures at local and asset levels and broader reforms, supported by coordinated action as a complement to a narrow insurance perspective.

The discussion reaffirmed that protection gaps have been widening where disaster-related losses exceed insurance coverage. Participants agreed that more consistent measurement is a prerequisite for effective policy, supervision, and risk-financing strategies, while underscoring persistent challenges related to data gaps, catastrophe data availability, methodological differences, and the treatment of insurable risks. Even though participants agreed about the importance of incentives, the respective role of mutualisation and risk-based pricing were more debated. Participants described several examples of successful collaborations between various stakeholders - governments, central banks, private actors and national organisations such as meteorological organisations - to better assess and address protection gaps. Beyond measurement, participants stressed that protection gaps are driven by a wide range of factors. Institutional, regulatory, market, and socioeconomic dynamics—including pricing decisions, affordability constraints, and shifts in insurance availability—play an important role alongside physical risks. Risk-based pricing was recognised as an important signal to align preparedness with risks, though it raises affordability concerns requiring policy attention. The role of supervision and public policy was also discussed as

[2] In Australia, 15% of properties are experiencing extreme stress to insurance premiums, which can reach more than one month of gross household income (15,000 to 20,000 AUD). In the discussion, one participant emphasised that the average annual inflation of household premium in France is around 7%, of which 1pp is linked to hazard intensification.

having an important role in assessing pricing adequacy, transparency, and systemic resilience. Clarifying which parts of protection gaps can be addressed by insurance markets and which require public interventions was considered essential. Looking ahead, stronger data collection and sharing, enhanced regional and international cooperation, and greater investment in resilience were identified as key enablers. Overall, most participants stressed the importance of coordinated action among public authorities, supervisors, insurers, and financial institutions to improve measurement, anticipate emerging gaps, promote investment in resilience and support sustainable risk-sharing solutions.

The third session of the workshop focused on practical approaches to address insurance protection gaps and to strengthen resilience to extreme weather events and natural hazards. It highlighted the need to enhance preparedness and mobilise both public and private sector tools.

The OECD's presentation emphasised that assessing insurance protection gaps remains challenging due to significant data limitations. An increasing interest in developing *ex ante* approaches to better understand future exposures and inform policy action was noted. The presentation identified key policy levers to enhance private insurance market capacity (improving risk awareness and financial literacy, supporting risk reduction, leveraging reinsurance and capital markets). Demand-side constraints were found to remain significant, with low insurance uptake partly explained by limited awareness and appetite. Evidence shows that automatic inclusion of natural hazard coverage significantly increases coverage levels. Public-private insurance programmes were also highlighted as an effective tool to expand coverage where private solutions are insufficient. In this context, the *G7 High-level Framework for Public Private Insurance Programmes against Natural Hazards* was recalled as a practical reference tool to guide policymakers in the adoption of multi-stakeholder approaches to reduce insurance protection gaps.

Key insights from an internal G7 Climate Change Mitigation working group paper on insurance gaps were then presented. This work was structured around four pillars: improving data and measurement, increasing insurance coverage, enhance financial literacy and preparedness, and strengthening prevention, in line with the G7 High-level Framework. It underlined that not all risks are insurable and that different models coexist; private solutions, public backstops and public-private partnerships. Examples of measures implemented in some G7 countries illustrated a wide range of approaches. They also highlighted ongoing efforts to expand coverage while maintaining affordability and encouraging risk reduction. The importance of strengthening the role of the private sector, supported by appropriate regulation, was emphasised. Prevention was also highlighted as a key factor, both at individual and collective levels.

In the discussion, interventions further illustrated the variety of approaches to addressing protection gaps: some G7 countries like France or Italy have opted for public-private partnerships supported by State-backed public reinsurer, the UK have established a reinsurance scheme specifically for flooding, some other countries like Germany rely mostly on the private sector insurance solutions, and some like Japan have opted for a combination of solutions ranging from enhancing preparedness and financial literacy, promoting insurance uptake, combined with a public reinsurance scheme. One participant highlighted the key role of incentives in designing risk-sharing mechanisms, quoting the successful "Strengthen Alabama Homes" certification programme in the United States, which have led to 35–45% lower insurance premiums, 7% increase in home value, and 70% less likely insurance claims for homes which benefited from retrofitting. Against this background, participants agreed that private insurance should remain the main approach, with the degree of public intervention being adapted to national contexts. Hence, the discussion concluded there is no "one-size-fits-all" approach, and all depends on national needs, priorities, geography and capacities. Among the many solutions discussed, participants mentioned for instance: raising risk awareness and prevention, enhancing financial literacy while improving affordability of insurance products, promoting and implementing risk-based regulatory and supervisory framework to support private insurance, and support access to insurance markets. It was noted that protection gaps raise fundamental questions about risk allocation across society and require a clear choice of risk allocation across stakeholders, together with clear incentives for risk reduction.

To conclude, strong consensus emerged on the importance of further work on these issues, including multi-stakeholder responses to reducing exposure, vulnerability and addressing protection gaps, given the impacts of extreme weather events. Further areas of work could include work on improving the availability and quality of data to enhance the measurement of the economic and financial consequences of extreme weather events, and of protection gaps. They could also include further best practice sharing on how to build tailored approaches to assessing macroeconomic impacts, strengthening resilience and addressing protection gaps, as no single model can address the diversity of local situations. In the lead-up to ministerial discussions, most participants reaffirmed the importance of advancing this agenda, in collaboration with international organisations such as OECD and IAIS, who expressed readiness to further support the work of the group.